STARTRITE®

Original Instruction Manual

MDE-HCE
MDE-HCS
MDE-HCT

Industrial Chip Extractors

IMPORTANT
For your safety read instructions carefully before assembling or using these products. Save this manual for future reference.

Version 2.0
June 2010

Startrite Industrial Woodworking Machinery

Startrite
Unit B, Adelphi Way
Staveley S43 3LS

Telephone: 01246 561 520
Fax: 01246 561 537

Email: sales@startrite.co.uk
www.startrite.co.uk

HEALTH AND SAFETY GUIDELINES

Always follow the instructions provided with the manual. Always wear safety glasses when using woodworking equipment. Always disconnect the power before adjusting any equipment. Failure to observe proper safety procedures and guidelines can result in serious injury.

WARNING: Do not allow familiarity (gained from frequent use of your machine and accessories) to become commonplace. Always remember that a careless fraction of a second is sufficient to inflict severe injury.

Always wear safety glasses when using woodworking equipment.

Always read the instructions provided before using woodworking equipment.

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Introduction

Dear Customer,

Thank you for investing in this Startrite® product, which has been designed to give you years of satisfying service. Please do not forget to fill in and return your guarantee card or register your product at www.startrite.co.uk. (This does not affect your statutory rights).

PURPOSE OF THIS MANUAL

This manual serves to give details of specification, health & safety, installation & assembly. Please ensure you have sufficient basic skill before using this machine.
If in any doubt please call 01246 561 520.

STARTRITE & RECORD POWER SHOWROOM

We have a large showroom close to junction 29A of the M1, stocked with the full range of products, which is used for demonstrations and product training. If you require guidance or instruction on any products or would like sales advice, please call 01246 561 520 to arrange a visit.

STARTRITE AND THE ENVIRONMENT

Considerations of environmental issues are an integral part of the design, production and other associated aspects of this product, and all reasonable environmentally friendly options have been adopted throughout.
Users are advised to consider environmental issues associated with the use of this product, particularly when considering workpiece material. Confirmation of sourcing from well-managed forests is advisable whenever practically possible.

WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) REGULATIONS

The WEEE regulations aim to encourage reuse, recycling and recovery of electrical and electronic waste. Full details of WEEE regulations can be found online.

Health & Safety Guidance

READ ALL THE INSTRUCTIONS IN THIS MANUAL CAREFULLY BEFORE ASSEMBLY, INSTALLATION AND USE OF THIS PRODUCT. KEEP THESE INSTRUCTIONS IN A SAFE PLACE FOR FUTURE REFERENCE.

WARNING: When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury.

SAFE OPERATION

1. Eye Protection
The operation of any machinery or power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Always wear safety glasses or other suitable eye protection. Wear safety glasses at all times when using the machine. Everyday glasses only have impact resistant lenses. They are not safety glasses which give additional lateral protection.

2. Keep work area clear.
Cluttered areas and benches invite accidents and injuries.

3. Consider work area environment.
Do not expose the machine to rain or damp conditions.
• Keep the work area well lit.
• Do not use the machine in the presence of flammable liquids or gases.

4. Guard against electric shock.
Avoid body contact with earthed or grounded surfaces.

5. Keep other persons away (and pets).
Do not let persons, especially children, not involved in the work, touch the machine, or extension cord (if used) and keep visitors away from the work area.

6. Store idle tools.
When not in use, tools should be stored in a dry locked- up place, out of reach of children.

7. Do not force the machine.
It will do the job better and work more safely if operated at the speed at which it was intended.

8. Use the right tool.
• Do not force small tools to do the job of a heavy-duty tool.
• Do not use tools for purposes not intended.

9. Dress properly.
• Non-slip footwear is recommended.
• Do not wear loose clothing, neckties or jewellery; they can be caught in the moving parts.
• Roll up long sleeves above the elbow.
• Wear protective hair covering to contain long hair.

10. Use protective equipment
• Use safety glasses. (See note 1. above)
• Use face or dust shield if cutting operation creates dust.

11. Connect dust extraction equipment.
Use dust extraction whenever possible dust not only damages and shortens the life of a machine but is also a serious health risk.

12. Do not abuse the cord.
Never yank the cord to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.

13. Secure work.
Ensure that your work piece is properly fixed before starting to turn.

14. Do not overreach.
Keep proper footing and balance at all times.

15. Maintain tools with care.
• Follow instructions for lubrication and changing accessories.
• Inspect electric cords periodically and, if damaged, have them repaired by an authorised service facility.
• Inspect extension cords (if used) periodically and replace if damaged. Always use proper size extension cord.

16. Disconnect Machine.
When not in use, before making adjustments and servicing etc., disconnect the machine from the power supply.

17. Never leave machine running unattended.
Turn power off, do not leave machine until it comes to a complete stop.

18. Remove adjusting keys and wrenches.
If you using a chucking system ENSURE chuck key is removed from chuck before switching the machine 'ON', any adjusting wrenches should also be removed from the machine.

19. Avoid unintentional starting.
- Ensure the switch is in the "OFF" position before turning on the power from the main electricity supply.

20. Outdoor Extension Leads.
Your machine should not be used outdoors.

21. Stay alert.
Watch what you are doing, use common sense and do not use the machine when you are tired.

22. Check for damaged parts.
• Before use of the machine, it should be carefully checked to determine that it will operate properly and perform its intended function.
• Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation.
• A guard or other part that is damaged should be properly repaired or replaced by an authorised service centre unless otherwise indicated in this instruction manual.
• Have defective switches replaced by an authorised service centre.
• Do not use the machine if the switch does not turn on and off.

23. Warning!
• The use of any accessory or attachment, other than one recommended in this instruction manual, or recommended by Startrite may present a risk of personal injury.

24. Have your machine repaired by a qualified person.
• This electrical unit complies with the relevant safety rules. Only qualified persons using original spare parts should carry out repairs. Failure to do this may result in considerable danger to the user.

Maintenance and Servicing
This unit requires very little maintenance. This handbook gives clear instructions on installation, set up and operation.
Read these instructions carefully. Remember always to switch off and unplug from the main electricity supply before carrying out any setting up or maintenance operations.

Startrite have a team of service engineers and any advice on repair or maintenance can be obtained from our Customer Services Department on 01246 561 520.

Additional Safety Guidance for Chip Extractors

BEFORE STARTING WORK BY AN OPERATING MACHINE:
Operations which cause the production of dusts (such as cutting, milling, grinding, etc.) should be carried out in separate areas.
The operating machine must be fitted with suitable outlets near the source of the waste dust, and must be properly connected to an aspiration system with 20m/s speed for dried material and 28m/s for moist material.
Let external air flow into the working area so as to reduce the presence of pollutants by means of good ventilation.
Working areas should be cleaned often and it is essential to keep them in good order. We recommend daily cleaning of the area, by using mechanical equipment and avoiding the use of brooms or compressed air.
When particular conditions or working techniques do not guarantee sufficient protection against the inhaling of waste dust, the employer must supply the staff with special PPE (personal protective equipment).
Wood dust is combustible and, when suspended in the air it may form a cloud, which may explode in case of air concentration higher than 40g/m^3, lower flash point and presence of a primer.
Use only tools in good order and in accordance with the rules EN847.1- EN847.2. Never work without the required protection devices (safety guards) and check their regular adjustment.

START THE CHIP EXTRACTOR BEFORE STARTING THE MACHINE TO WHICH IT IS CONNECTED:
Always leave the Chip Extractor running for 20-30 seconds after the machining to ensure the waste material is fully cleared.
Use the required ear protections for long periods by the machine. Remove dust and chip residues only when the machine is switched off and disconnected from the power supply.

AFTER WORK:
Never leave the machine on and unattended, wait until the machine has stopped completely before leaving the workshop. Clean the machine and the surrounding area regularly.

RESIDUAL RISKS:
Despite observance of all the safety regulations, and use according to the rules described in this manual, residual risks may still be present, among which the most common are:
- contact with tool
- contact with moving parts (belts, pulleys, etc..)
- recoil of the piece or part of it
- accidents due to wood splinters or fragments
- tool insert ejection
- electrocution from contact with live parts
- danger due to incorrect tool installation
- inverse tool rotation due to incorrect electrical connection
- danger due to dust inhalation in case of working without vacuum cleaner.

Bear in mind that the use of any machine tool carries risks.
Use the appropriate care and concentration for any type of machining (also the most simple).

SAFETY AND INFORMATION SIGNS

The warning labels below may be applied to the machine; in some cases they indicate possible danger conditions, in others they serve as indication only. Always take the utmost care.

SAFETY SIGNS:

Risk of eye injury. Wear eye protection.

Wear hearing protection systems.

Danger of electric shock. Do not access the area when the machine is powered.

Carefully read and understand the manual before using the machine.

INFORMATION SIGNS:
Indicate the technical characteristics, direction of rotation and inclination, block and release, etc.
Carefully follow the directions to simplify the use and adjustment of the machine.
The signals are graphically described and do not require further explanation.

Startrite Guarantee

1. INTRODUCTION

1.1 We supply machinery through a network of dealers and authorised distributors and you should be aware that your contract of sale is with the retailer from whom you purchased this product.

1.2 If you are not satisfied with this product you should in the first instance approach the retailer from whom you purchased it.

1.3 Customers have statutory rights to protect them and information on this can be found at the Citizens Advice Bureau or on such web-sites as those operated by the DTI (http://www.dti.gov.uk)

1.4 Returning your guarantee card will speed up the claims procedure and can be very helpful as a proof of purchase should the initial receipt be mislaid or damaged. We recommend that this is returned as close to your original purchase date as possible.

1.5 Correct installation, set-up, adjustment and routine maintenance of the machine are the responsibility of the end-user and problems arising from incorrect set-up, adjustment or maintenance are not covered by the terms of this guarantee. However support is available in the first instance from the retailer who supplied you and free technical support is available from Startrite on 01246 561 520 during office hours and from an extensive knowledge base on our website www.startrite.co.uk. We also recommend those users who have not had suitable training in safe use of machinery should seek such training locally before using or attempting to set up and adjust any machinery (please contact your retailer for recommendations in your local area).

2. GUARANTEE

2.1 In addition to the above Startrite guarantees that for a period of 1 year from the date of purchase the components of this product will be free from defects caused by faulty construction or manufacture.

2.2 During this period Startrite will repair or replace free of charge any parts which are proved to be faulty in accordance with paragraph 2.1 above provided that:

2.2.1 You follow the claims procedure set out below;

2.2.2 We are given a reasonable opportunity after receiving notice of the claim of examining the product.

2.2.3 If asked to do so by us you return the product or faulty part to Startrite's premises or other approved premises such as those of the supplying dealer, for the examination to take place.

2.2.4 The fault in question is not caused by accidental damage, fair wear and tear, wilful damage, negligence on your part, incorrect electrical connection, unapproved modification, abnormal working conditions, failure to follow our instructions, misuse, or alteration or repair of the product without our approval.

2.2.5 This product has been purchased by you and not used for hire purposes;

2.2.6 This Guarantee extends to the cost of carriage incurred by you returning the product or faulty part to Startrite as long as it is demonstrated that the defect falls within the terms of this Guarantee and you follow the claims procedure as outlined below;

3. CLAIMS PROCEDURE

3.1 In the first instance please contact the retailer who supplied the product to you. In our experience many initial problems with machines that are thought to be due to faulty parts are actually solved by correct setting up or adjustment of the machines. A good dealer should be able to resolve the majority of these issues much more quickly than processing a claim under the guarantee.

3.2 If the dealer who supplied the product to you has been unable to satisfy your query, any claim made under this Guarantee should be made directly to Startrite at the address set out at the foot of this Guarantee. The claim itself should be made in a letter setting out the date and place of purchase, and giving a brief explanation of the problem which has led to the claim. This letter should then be sent with proof of the purchase date (preferably a receipt) to Startrite. If you include a phone number or email address this will help to speed up your claim.

3.3 PLEASE NOTE that it is essential that the letter of claim reaches the address below on the last day of this Guarantee at the latest. Late claims will not be considered.

3.4 We will contact you once we have received your initial written claim. If it is necessary to return the item, in most cases but subject always to clause 2.2.5, we will arrange for collection or will provide freepost information to enable return depending on the weight and size of the product or component concerned. If the product is to be returned to us, we will agree with you in advance a Returns Number, to speed tracking of the claim and ensure the most appropriate method of return to you is used.

4. NOTICE

This Guarantee applies to all goods purchased from an authorised retailer of Startrite within the United Kingdom of Great Britain and Northern Ireland. This Guarantee does not confer any rights other than those expressly set out above and does not cover any claims for consequential loss or damage. This Guarantee is offered as an extra benefit and does not affect your statutory rights as a consumer. Additional written copies of this Guarantee can be obtained by writing to the address below. Please include a stamped and self addressed envelope for each copy of the Guarantee requested.

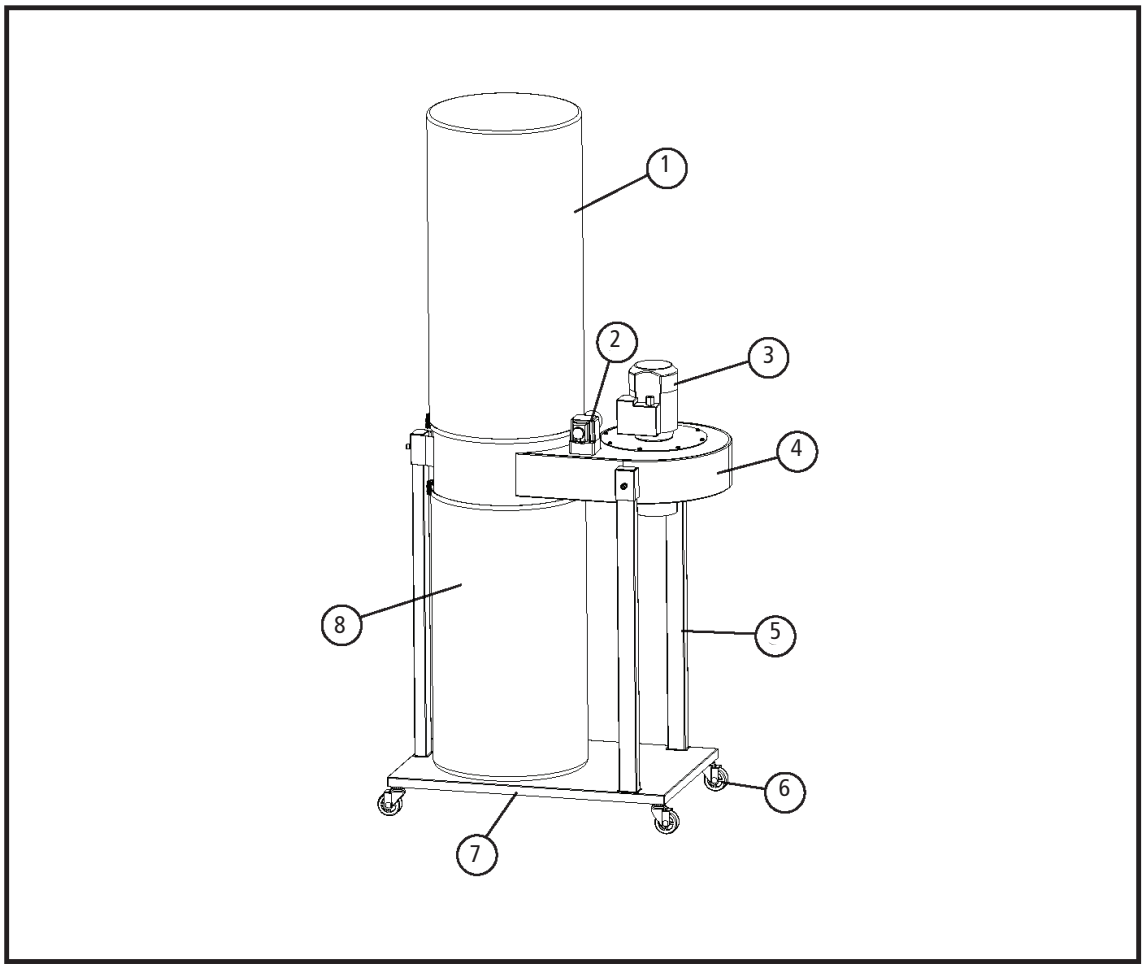
Startrite Machines
Unit B, Adelphi Way
Ireland Industrial Estate
Staveley, Chesterfield
S43 3LS

1. Specification

Model:	MDE-HCE	MDE-HCS	MDE-HCT
Impeller diameter:	260mm	305mm	330mm
Suction hose inlet diameter:	150mm	150mm	200mm
Bag diameter:	450mm	500mm	500mm
Filter bag length:	870mm	1060mm	1210mm
Collection bag length:	875mm	940mm	1020mm
Air flow (cu.m/hr):	2000	3000	5000
Sound Power Level	<95dB	<95dB	<95dB
Sound Pressure Level	<85dB	<85dB	<85dB
Motor Power P1:	1000W	2000W	2900W
Motor Power P2:	1HP	2HP	3HP
Weight:	43kg	62kg	91kg

NOTE: Once these machines are turned on, they are with load. So, there is no noise level without load shown.

2. Getting to Know Your Machine



1 - Filter bag
2 - Switch
3 - Motor
4 - Motor housing unit
5 - Support column
6 - Wheel assembly
7 - Base panel
8 - Collection bag

3. Description & Directions for Use

This chip extractor is suitable for machines working wood or similar materials, such as cork or plastics. It can collect solid wood wastes and shavings from hardboard, fibre panels or plywood covered with laminate and plasterboard. It can also collect filaments from textile industry.

This machine is not suitable for collecting metals or substances impregnated with liquids. It is not suitable for collecting fumes, gas or potentially explosive substances for working in a potentially explosive atmosphere.

The filtering levels referred to in this manual relate to wood shavings and chippings. Therefore, in case of collection of particularly fine dust, for which the standard unit is not suitable, performance values could be significantly lower. An optional fine filter cartridge can be fitted to improve performance with fine dust particles.

Do not use the extractor in presence of:
- Fire
- Explosive gases
- Corrosive substances
- Heavy vibrations
- Water bolts

Any other use of the machine is to be considered as non compliant.

Operation, equipment and maintenance of the extractor must be done only by skilled staff well acquainted with the safety rules. The assignments for the equipment and the maintenance of the machine must be clearly defined.
It is necessary to conform to the rules for accident prevention, as well as to any other rule for safety in technical activities and prevention of work accidents.
It is necessary to use only original spare parts; the manufacturer does not provide any guarantee for defects caused by the use of non original or self-made spare parts. Furthermore, the manufacturer declines all responsibility for unauthorized alterations of the chip extractor.

4. Assembly

4.1 ASSEMBLY OF LOOSE PARTS
some parts will be disassembled from the machine main structure due to packaging and shipping requirements.
These loose parts should be assembled as follows:

WARNING: Please tighten all bolts and nuts absolutely. Otherwise, may cause machine wobble or serious injury to the operator or other persons.

4.1.1 INSTALL WHEEL AND SUPPORT COLUMN (Fig. 4.1)
- Install four wheels C to the base panel B using the nuts supplied.
- Install columns A to the base panel B with part 1 hex bolt, 2 spring washer and 3 flat washer.

4.1.2 INSTALL MOTOR UNIT TO SUPPORT COLUMNS (Fig. 4.2)
- Insert the columns A to the holder on frame B
- Lock it with Screw 1.

NOTE: The motor housing unit can be mounted to the support columns in two different orientations.
If the chip extractor is to be connected to a single machine, then the housing should be attached to the support columns as shown with the motor at the top and hose inlet on the underside. (Fig 5.2)

If the chip extractor is to be permanently connected to a fixed ducting system in a small workshop (in order to extract waste from several different machines) the motor housing can be inverted so that the hose inlet is at the top and the motor unit is on the underside. If using this alternative orientation, the filter bag should still be placed at the top and the collection bag on the underside so that the waste material is still collected in the normal way (Fig 5.1).

4.1.3 INSTALL BAG SUPPORTS (Fig. 4.3)
- Insert the rod A to top support ring B.
- Insert the lower side of the rod A to the holder of frame C.

4.1.4 INSTALL FILTER BAGS (Fig. 4.4)
- Install the bags A&C, and secure as shown with clamps B.

Fig. 4.1

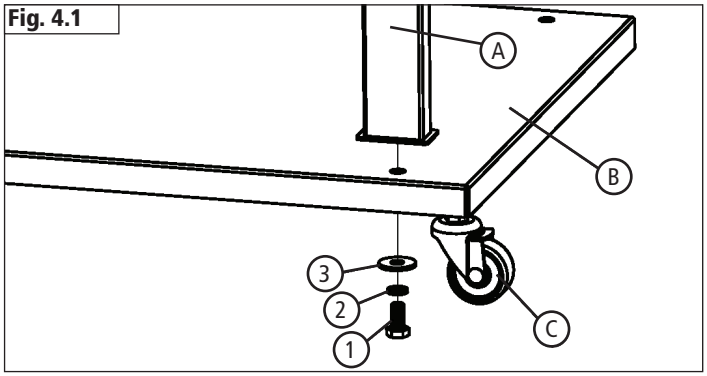


Fig. 4.2

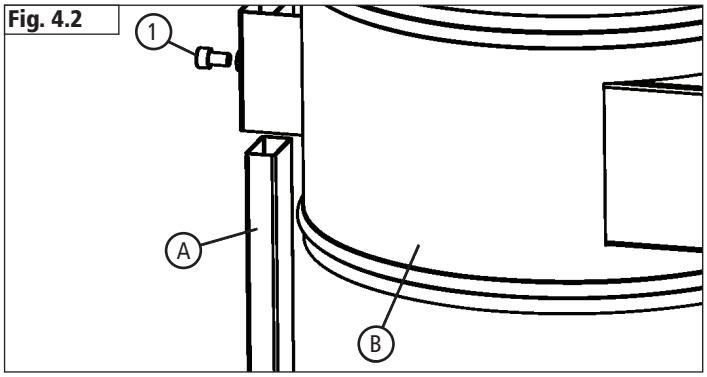


Fig. 4.3

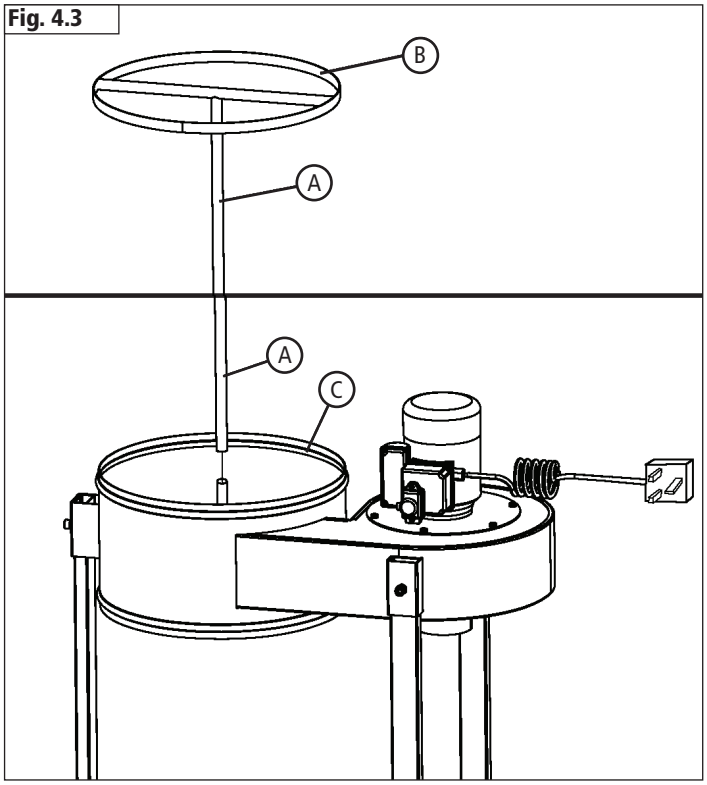
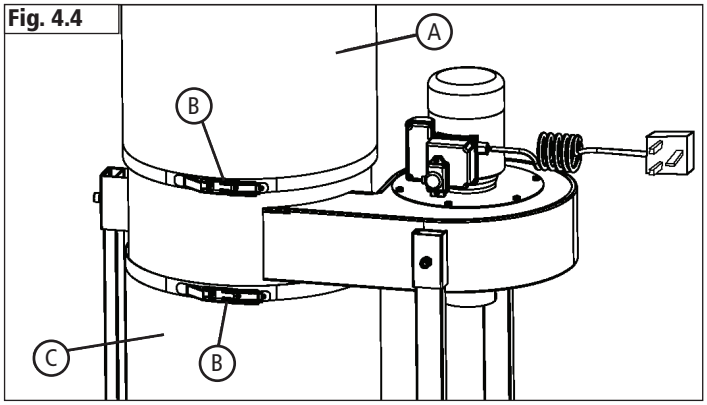


Fig. 4.4



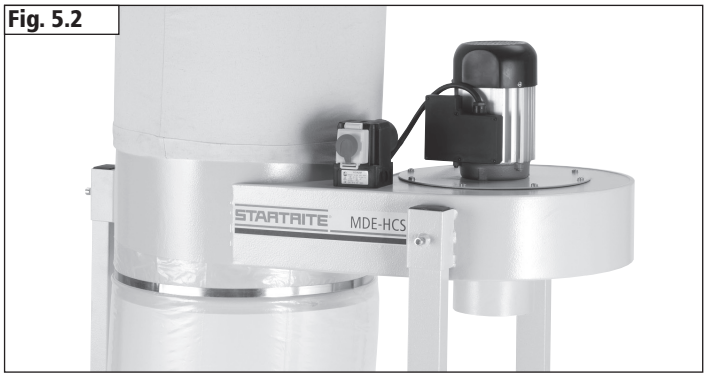
5. Instructions for Use

The chip extractor is assembled with cotton filtering sacks.
In case of collection of particularly fine dusts, it is necessary to substitute the filtering sack with another one made of thicker fabric, or install cartridge filters, for details of the optional filters that are available for the CX3000, please contact our customer service team on 01246 561 520 or email sales@recordpower.co.uk. The chip extractor must be positioned out of the working area, in a room nearby.

The motor unit can be mounted with the hose facing upwards (Fig. 5.1) or downward (Fig. 5.2) to best suit the needs of the user.

Fig. 5.1

Fig. 5.2



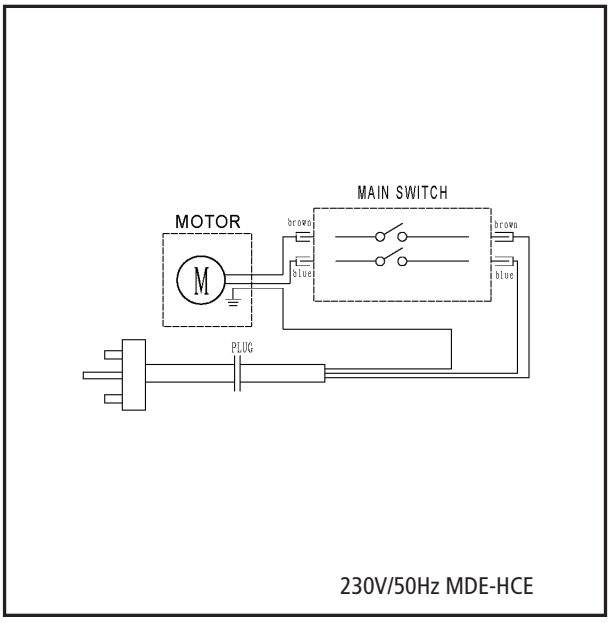
6. Maintenance

Before any maintenance of the chip extractor, remove the plug from the power supply and ensure that the impeller has fully stopped.
The electric motor does not need any maintenance as it is equipped with sealed lubricated bearings.
Periodically check the state of the filtering sack; the fabric should never show signs of abrasion or damage. Empty the sack regulary and before it reaches maximum capacity.
The filtering sack should be cleaned often so as to guarantee maximum performance of the chip extractor. It should be replaced if it is in poor condition.
When replacing the filtering sack, as the procedure might release dust in the environment, it is recommended to arrange in advance a suitable working area, so as to avoid damage caused by a spread of dust into the workshop.
Always wear a suitable dust mask when clearing or disposing of waste material.

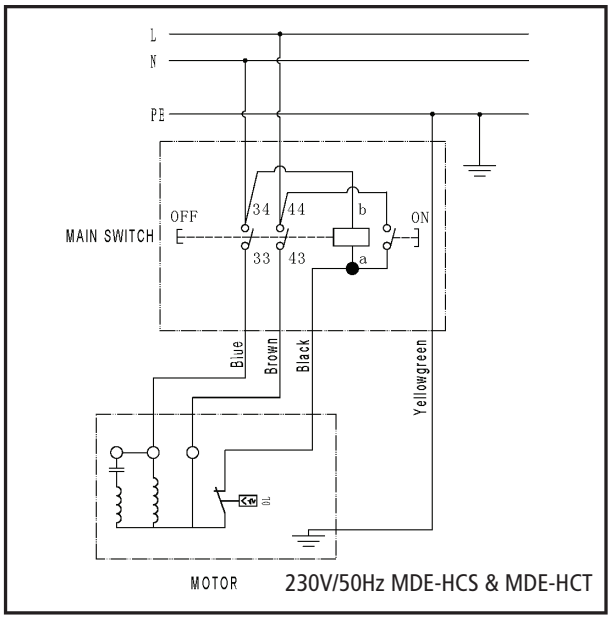
7. Electrical Connection

- Electrical installation should be carried out by competent, qualified personnel.
- The mains connection should be made using the terminal box.
- Replacement of the power supply cable should only be done by a qualified electrician.
- Check that the electric installations of the workshop are equipped with a protection device against short-circuits.
- The connection between machine and electrical supply must be carried out only by means of a socket with standardized plug, with maximum carrying capacity of 16A and cable of a suitable cross section (2.5mm^2 recommended)
- Before connecting the machine to the electrical supply, check that the line voltage corresponds to that indicated on the motor. If the machine is three phase, check that the propeller fan, visible through the box top, rotates according to the direction indicated by the arrow, giving an impulse to the switch. If the propeller fan rotates inversely, it is necessary to invert two cables in the connecting plug.
- Single-phase motors, on the contrary, are already preset for the right direction of rotation.

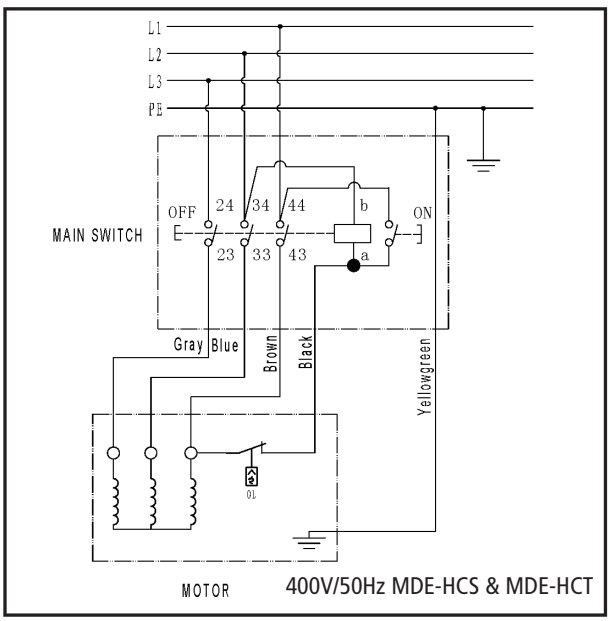
WARNING: To avoid electrocution or fire, any maintenance or repair to the electrical system should be done only by qualified electricians using genuine replacement parts.



230V/50Hz MDE-HCE

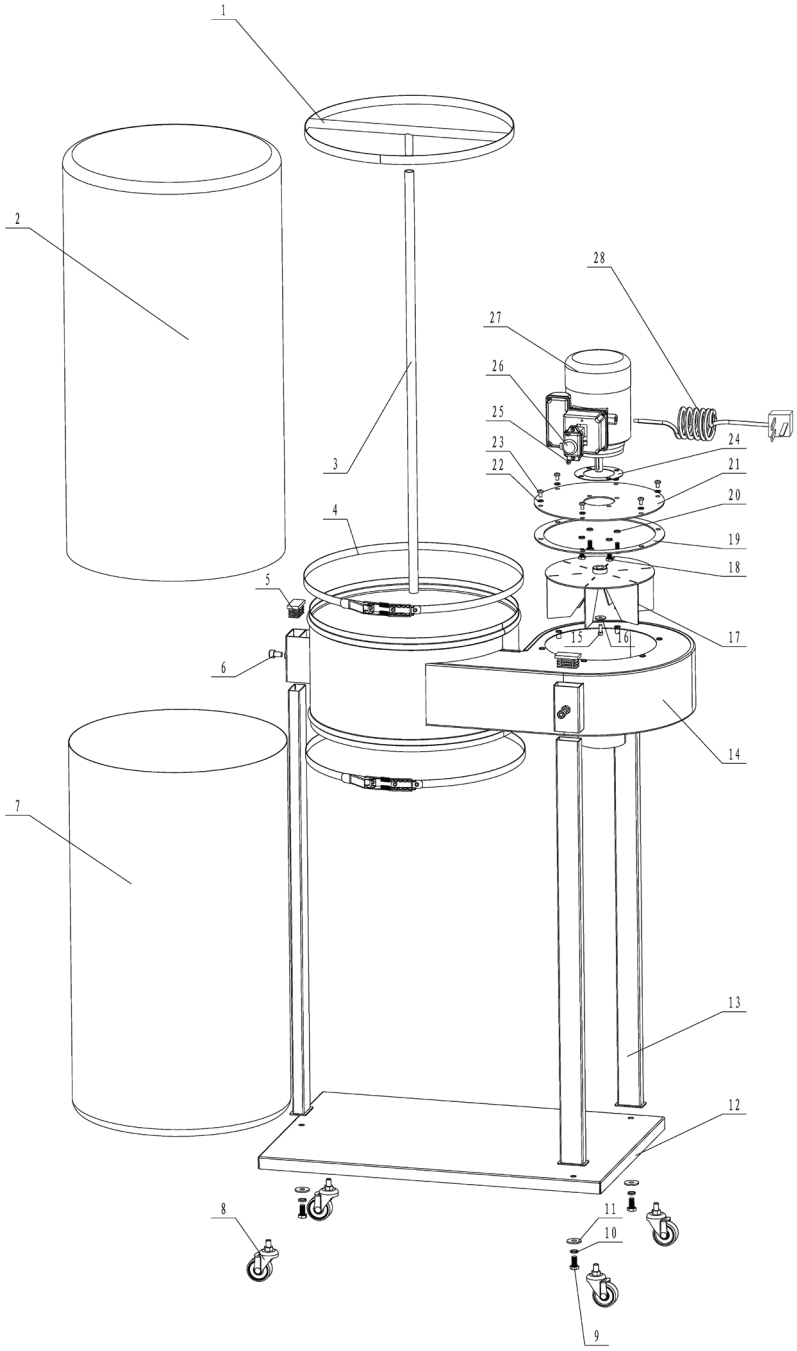


230V/50Hz MDE-HCS & MDE-HCT



400V/50Hz MDE-HCS & MDE-HCT

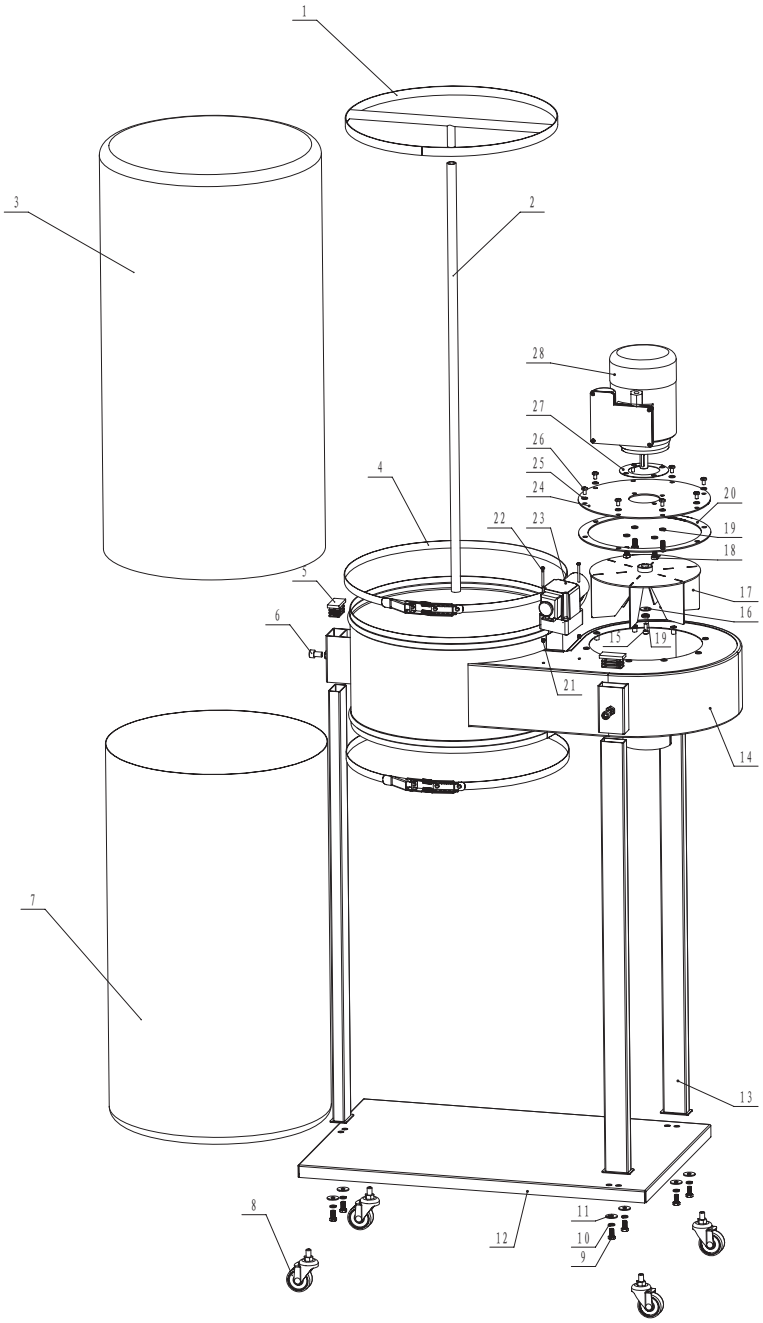
9. Parts Lists & Diagrams



MDE-HCE

1	Upper bag support
2	Dust filter bag
3	Support
4	Clamping assembly
5	Plastic cap
6	Hex socket head cap screw
7	Collection bag
8	Wheel assembly
9	Hex. bolt
10	Spring washer
11	Washer
12	Base assembly
13	Column
14	Frame
15	Hex socket head cap screw
16	Washer
17	Impeller
18	Hex. bolt
19	Gasket
20	Spring washer
21	Motor bracket
22	Washer
23	Cross recessed pan head screw
24	Seal
25	Pan head tapping screw
26	Switch
27	Motor
28	Cable plug

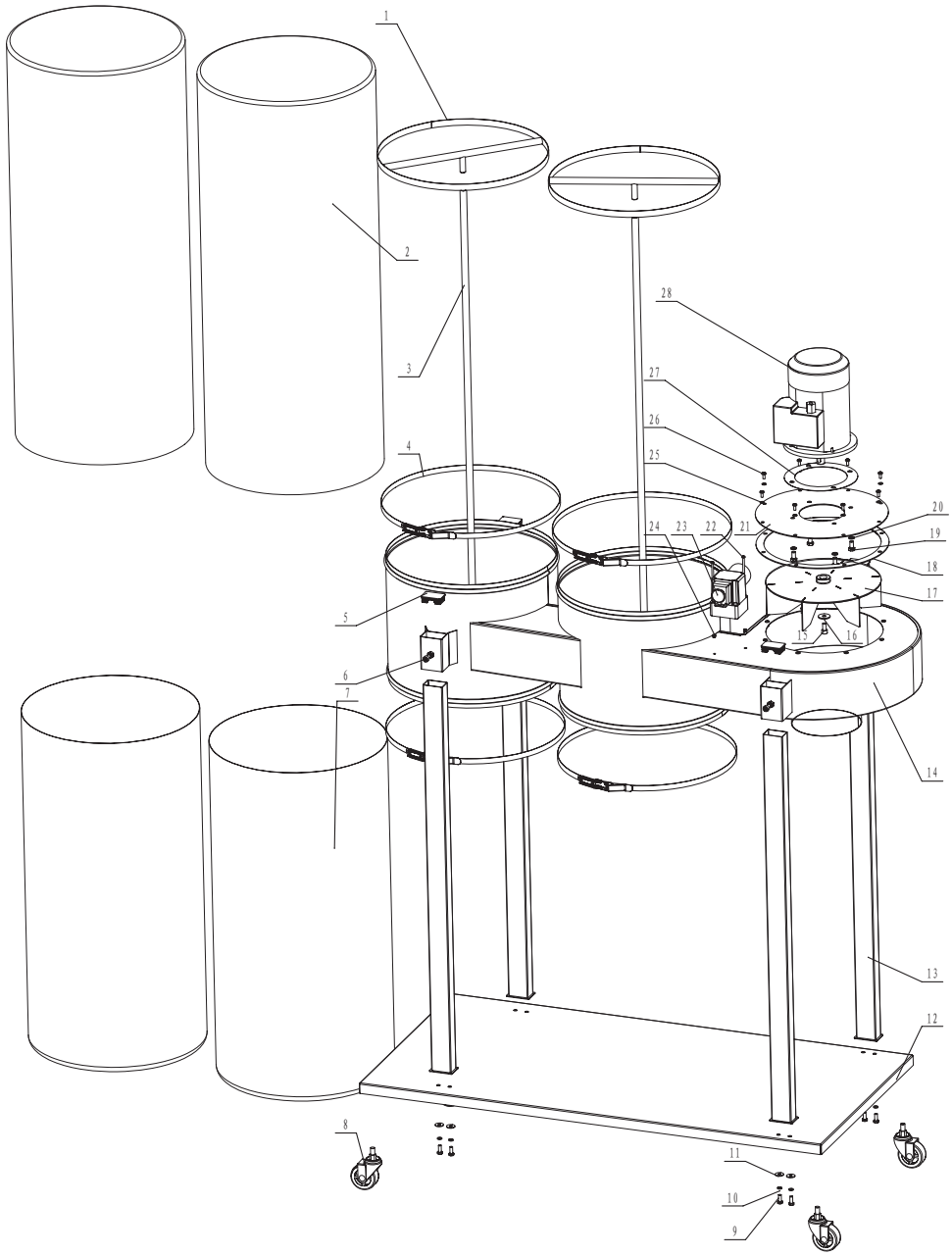
9. Parts Lists & Diagrams - Cont.



MDE-HCS

1	Upper bag support
2	Support
3	Dust filter bag
4	Clamping assembly
5	Plastic cap
6	Hex socket head cap screw
7	Collection bag
8	Wheel assembly
9	Hex. bolt
10	Spring washer
11	Washer
12	Base assembly
13	Column
14	Frame
15	Hex socket head cap screw
16	Washer
17	Impeller
18	Hex. bolt
19	Spring washer
20	Gasket
21	Hex. Nut
22	Pan head tapping screw
23	Switch
24	Motor bracket
25	Washer
26	Cross recessed pan head screw
27	Seal
28	Motor

9. Parts Lists & Diagrams - Cont.



MDE-HCT

1	Upper bag support
2	Dust filter bag
3	Support
4	Clamping assembly
5	Plastic cap
6	Hex socket head cap screw
7	Collection bag
8	Wheel assembly
9	Hex. bolt
10	Spring washer
11	Washer
12	Base assembly
13	Column
14	Frame
15	Hex socket head cap screw
16	Washer
17	Impeller
18	Gasket
19	Hex. bolt
20	Spring washer
21	Motor bracket
22	Pan head tapping screw
23	Switch
24	Hex. Nut
25	Washer
26	Cross recessed pan head screw
27	Seal
28	Motor

EU Declaration Of Conformity

Cert No: EU / MDE / 1

RECORD POWER LIMITED,
Unit B, Ireland Industrial Est.
Adelphi Way, Staveley, Chesterfield S43 3LS
declares that the machinery described:-

1. Type: **CHIP EXTRACTORS**

2. Model No: **MDE-HCE, MDE-HCS, MDE-HCT**

3. Serial No .....

Conforms with the following directives:-

MACHINERY DIRECTIVE	EN IS0 12100-2/A1: 2009 EN 60335-2-69: 2009
LOW VOLTAGE DIRECTIVE and its subsequent amendment	EN ISO 12100-2/A1: 2009 EN60335-2-69: 2009
ELECTROMAGNETIC COMPATIBILITY DIRECTIVE and its subsequent amendments	EN55014-1:2006 EN55014-2?A2: 2008 EN61000-3-2: 2006 EN61000-3-3: 2008

and conforms to the machinery example for which the
EC Type-Examination Certificate No. BJ8001001601; BJ8001011301; BJ5001001501
has been issued by **TUV SUD Product Service GmbH**,
at: Zertifrzierstelle, Ridlerstrasse 65 80339 Munchen, Germany.

and complies with the relevant essential health and safety requirements.

Signed..... Dated: 01/06/2010

Andrew Greensted
Managing Director

STARTRITE®

Industrial Woodworking Machinery

Startrite Industrial Woodworking Machinery

Startrite
Unit B, Adelphi Way
Staveley S43 3LS

Telephone: 01246 561 520
Fax: 01246 561 537

Email: sales@startrite.co.uk
www.startrite.co.uk